New York State Integrated Pest Management Program

Novel Use of Japanese Beetle Pheromone & Floral Lures to Reduce Grub Populations in Turfgrass

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Summary of Research Rational, Objectives and Experimental Design

There has been considerable interest in the use traps that incorporate 2 chemical lures the first containing (R, Z,)-5-(1-decenyl) dihydro-2(3H)-furonone that mimics the female sex pheromone of this species (attracting only male Japanese beetle adults), and the second, a standard floral lure composed of a mixture of phenethyl propionate, eugenol, and geraniol (3:7:3 ratio), that serves as a feeding lure (attracting both male and female beetles). The use of these dual lure beetle traps for reducing both adult Japanese beetle populations and subsequent grub populations have long been debated. While large numbers of adults can be attracted to these traps in the field there is little evidence that enough beetles are actually removed from the population to reduce adult feeding damage to foliage (Potter 1985, 1986) or to prevent beetle mating, thereby reducing grub damage in turfgrass the following fall.

For a printed copy of the entire report, please contact the NYS IPM office at:

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